REMARKS

This Amendment is in response to the Office Action of July 19, 2004 in which claims 1-20 were rejected.

Regarding the 35 U.S.C. § 102(e) rejection of the independent claims 1, 6, 11, and 16 as well as their respective dependent claims 3, 8, 13 and 18 as being anticipated by Hundscheidt (U.S. 6,757,266), Hundscheidt does not show SIP used for signaling. Hundscheidt only expressly shows a SETUP message between the terminal equipment TE of the TCP/IP network and the gateway GAS (step S1). The setup signaling shown by Hundscheidt is not application-layer signaling but rather lower layer signaling of the prior art e.g. Q.931 signaling in the PRI ISDN D-channel. The content that is signaled in Hundscheidt is either IP address or an MS ISDN number. The purpose is to setup a telephone call. Once the communication is setup, it is suggested by Hundscheidt that an access server AS' can be utilized according to either its location, its call processing specific characteristics, or both. In other words, after the call setup the call is routed in step S6 through the GAS to the access server AS'. This is payload, not signaling. One of the call processing specific characteristics listed by Hundscheidt in Table 2, as pointed out by the Examiner, is SIP. So it appears that the payload packets sent from the terminal equipment TE of the TCP/IP network after the communication setup by the previously discussed non-SIP signaling, could possibly be according to the SIP. But it is not at all clear from Hundscheidt what exactly is the role of the SIP in such a context. Hundscheidt doesn't explain why such a thing would be done after the call is already setup. In other words, Hundscheidt is not believed to be an enabling reference against the independent claims of the present application even before amendment.

In any event, it appears that the signaling contemplated by Hundscheidt is not application-layer signaling since he specifically shows a setup message. If the Examiner will refer to the SIP document by Handley et al (RFC 2543), he will note that there is no setup message in the SIP. The setup message of Hundscheidt is an IP-ADR or MSISDN. Therefore, it is incorrect for the Examiner to say that Hundscheidt shows the GAS of Hundscheidt receiving signaling

provided by an application-layer control protocol from a terminal of a packet data network. Consequently, since Hundscheidt fails to show providing SIP signaling to any interface between a TCP/IP network and a PLMN, there can be no converting of any such signaling shown either (as claimed).

Regarding claim 3, although Hundscheidt mentions SIP in Table 2, it is for the processing characteristic relating to the payload packets delivered to the access server AS' from the terminal, not signaling from the terminal to the gateway GAS. What is claimed in claim 3 is the same as claimed in claim 1, i.e., application-layer signaling from a terminal of a packet data network to an interface between the packet data network and a circuit-switched network. The signaling shown by Hundscheidt between the terminal and the gateway GAS is not application-layer signaling.

Nevertheless, the independent claims have been amended to make clear the true nature of the invention, i.e., that the signaling provided by the application-layer control protocol is registration signaling such as shown for instance in detail in Figs. 2A and 2B of the present disclosure. This registration signaling from e.g., the SIP terminal 10 of Fig. 2B is converted by e.g., the roaming signaling gateway R-SGW 18 of Fig. 2B into signaling utilized in the GSM network shown in Figs. 2B and 2A so that the SIP terminal 10 can become registered in the circuit-switched network for enabling the terminal to access one or more services of the circuit-switched network *as a registered user of the circuit-switched network.*

In this way, the SIP terminal 10 of Figs. 1 and 2A/2B of a packet data network is able to register in the circuit-switched network and take advantage of one or more services of the circuit-switched network which, as claimed in claim 3 for instance, is a public land mobile network (PLMN). Withdrawal of the 35 U.S.C. § 102(e) rejection of claims 1, 3, 6, 8, 11, 13, 16 and 18 is requested.

Regarding the 35 U.S.C. § 103 rejection of claims 2, 7, 12, and 17 as being unpatentably obvious over Hundscheidt in view of Handley et al (RFC 2543), it was mentioned above that the amended claim makes it clear that the signaling by the application-layer control protocol is registration signaling which

allows a terminal of a packet data network to register as a user of the circuit-switched network services including according to claims 2, 7, 12 and 17, roaming in the circuit-switched network (PLMN). Neither reference shows or suggests a terminal on a packet data network registering in a circuit-switched network for purposes of accessing services thereof.

Regarding the Examiner's comments, it is incorrect for the Examiner to state that the signaling from the terminal is for enabling access to a roaming service available in the circuit-switched network. The Examiner's attention is drawn to the signaling shown in Hundscheidt's Fig. 2A (or Fig. 3A) which makes it clear that the only thing being shown by Hundscheidt is setup of a call, not registration of the terminal equipment TE of the TCP/IP network in the public land mobile network (PLMN). Notice that there is no information conveyed in the signaling having to do with the claimed private user identification of the terminal but only an IP address or MSISDN telephone number. This is because the TE is not being registered, as is the case for instance in Figs. 2A and 2B of the present disclosure. In the present disclosure, the SIP terminal is trying to get registered in the GSM network through a roaming signaling gateway R-SGW 18. Once registered, the SIP terminal will be able to take advantage of e.g. the roaming features of the GSM network just like it was a GSM terminal. This is what is meant by the claimed access to one or more services of the circuit-switched network, which is explicitly claimed in claims 2, 7, 12 and 17 as being a roaming service. None of this is either shown or suggested by Hundscheidt.

Withdrawal of the 35 U.S.C. § 103 rejection of claims 2, 7, 12 and 17 is requested.

Regarding the obviousness rejection of claims 4, 5, 9, 10, 14, 15, 19 and 20 based on Hundscheidt in view of RFC 2327, neither of the references show or suggest using the application-layer signaling to indicate a private user identification of packet network terminal for purposes of registration in a circuit-switched network, much less a session description protocol to carry such information within an SIP.

Claim 4 depends from claim 3 which was previously discussed in overcoming the novelty rejection above. As was pointed out previously, Hundscheidt fails to show application-layer signaling, fails to show SIP signaling, and with respect to claim 4, does not show or even hint at a session description protocol (SDP) within SIP. The Examiner admits as much and the Examiner's argument that one of skill in the art would have recognized the advantage of using the origin field in SDP to identify a private user identification of the terminal as taught by Handley et al in RFC 2327 is not convincing because (1) the setup message of Hundscheidt is not an SIP message but rather ISDN signaling or PSTN signaling and (2) the motivation to make the proposed modification does not come from the prior art itself.
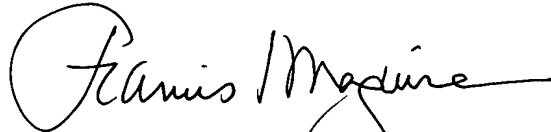
Claims 9, 14 and 19 are similar to claim 4 in depending from respective claims 8, 13 and 18 which in turn depend from independent claims 6, 11 and 16 which are all similar to claim 1 and the above comments apply to them as well.

Regarding claims 5, 10, 15 and 20, these depend from independent claims 1, 6, 11 and 16. These claims do not explicitly specify that the application-layer control protocol is SIP but do specify that a session description protocol (SDP) is provided within the application-layer control protocol to indicate a private user identification of the terminal for enabling access to a roaming service available in the circuit-switched network. As previously pointed out, Hundscheidt fails to show, even with his non-application-layer control protocol, any indication whatsoever of indicating a private user identification of the terminal. This is because Hundscheidt is not concerned with registering the terminal equipment of the TCP/IP network in the GSM network but is instead concerned with establishing a call and that is all.

Withdrawal of the 35 U.S.C. § 103 rejection of claims 4, 5, 9, 10, 14, 15, 19 and 20 is requested.

The objections and rejections of the Office Action of July 19, 2004, having been obviated by amendment or shown to be inapplicable, withdrawal thereof is requested and passage of claims 1-20 to issue is solicited.

Respectfully submitted,

Francis J. Maguire
Attorney for the Applicant
Registration No. 31,391

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WARE, FRESSOLA, VAN DER SLUYS
   & ADOLPHSON LLP
Bradford Green, Building 5
755 Main Street, P.O. Box 224
Monroe, Connecticut 06468
(203) 261-1234